The negative effect of clubbing on the body

The levels of clubbing and video gaming have increased in the twenty first century; however the people that go out don’t know realise that they are falling victim to the unhidden dangers of clubbing. Epilepsy and heart attacks are conditions that have been associated with stress, bad nutrition and other major triggers of the conditions without realising that even the so-called fun places and gadgets we spend time on can be a danger to our lives, or the lives of an epileptic. Commonly used strobe lights in the clubs can lead to photo sensitive epilepsy which isn’t just there to enhance the hype of the clubbing, but are a serious danger. The rhyme of the music in the night clubs can also lead to severe consequences such as cardiac arrest. Therefore in this assignment we will be trying to make aware to all people the dangers of the fun side of our lives, mostly to the young people who have adapted to the twenty first century style of living.

Negative effects of music on the heart:

Some types of music can cause the brain to lose its symmetry between its right and left halves, or hemispheres. It can likewise generate diminished work capabilities in adults. The specific type of beat may be at fault. The types of music that cause these effects on the brain are mostly aggressive forms of music such as heavy rock or rap. The anapestic beat causes the ‘ switching’ of the brain, that is, the symmetry that exists between the two hemispheres of the brain is destroyed. This strains the heart and causes a stress to the body, weakening the muscles. (Heather, S, 2006, pg1)

The anapaestic beat, which is the type of rhythm found in hard rock music, is known to be the exact opposite rhythm to that of our heart. Naturally this interrupts the natural rhythm of the heart, and disturbs normal heart rate

and results in a strain or stress to the body. (Heather, S, 2006, pg1) Loud, fast paced music significantly increases the heart rate and when heart rate increases, cardiac output and resultantly blood pressure also go up. Blood pressure is raised by crisp, repeated chords. Both consonant and dissonant chords exert a profound effect on a person’s pulse and respiration. (Frederick, W, 2007, pg32)

Intense or loud music e. g. rock, electro result in the body’s release of the fight or flight hormones, i. e. epinephrine, norepinephrine, cortisol by the adrenal glands. This is followed by the constriction of the tiny blood vessels and consequently the increase in the blood pressure and heart rate. (Navaro, R, 2009, pg73) the way the body reacts can be likened to the same way it reacts when under stress or strain. Heart rate acceleration is associated with loudness , the tempo and the musical complexity of the music that is, as the tempo increases and the music becomes louder and with the inclusion of several instruments comes the marked and rapid increase in circulatory and cardiac activity. (Kahn A, P, 2009, pg220)

The increase in blood pressure due to the strain brought on the body is counteracted by blocking/inhibition of the central sympathetic outflow of the heart and peripheral circulation. Baroreceptors are able to detect the changes in the vessel walls, which occurs due to the changes in the arterial pressure. The regulation occurs sequentially, from the intermediolateral cell column, to the preganglionic neurons, sympathetic ganglia, and to the post ganglionic sympathetic nerves directed to the heart, arterioles, veins and kidneys. This homeostatic process is referred to as the Baroreflex negative feedback loop which is the body’s way to react to increased blood pressure.

The final result is a decrease in blood pressure and heart rate. (Fink, 2000, pg241)

http://s1. favim. com/orig/26/adidas-party-rave-strobe-lights-Favim. com-227934. jpg http://a0. twimg. com/profile_images/768839063/SoundSystemSpkrWall. jpg

(DJ in night club, n. d.) (Picture of a sound system, n. d.)

Positive Effect of Music on the Heart:

Music can have a positive effect on the body. This however does not include house, club, rave or any music with a fast beat.

Classical music can cause the heart rate (pulse) to relax to the beat of the music as the rhythm is slow and calming. Such classical music includes that of the baroque period. As the heart rate becomes more relaxed so does the body, this allows for increased concentration. By having a decreased heart rate a person’s blood pressure will decrease too, allowing for enhanced learning abilities. (Anon, 2012)

Music doesn’t just affect the heart rate, but also the frequency and amplitude of the brain waves. This is measured with an electroencephalogram. As well as effecting the breathing rate and the skins electrical resistance. So depending on the pace of the music depends on how the breathing rate, brain waves and the skins electrical resistance will be affected. Calming music will decrease the breathing rate although the breaths that will be taken will be deep allowing for increased oxygen to be supplied throughout the body. (Anon, 2012)

How a heart attack happens/ What is a heart attack:

For our hearts to function we need oxygen and nutrients, this ensures that the heart carries on beating. The rhymatic beating of the heart allows nutrients and oxygen to be pumped in and around the body which ensures our survival. When there is a shortage or no oxygen, the heart will not be able to function normally. This is known as a heart attack or a coronary attack. (Anon, 2012)

This happens when the coronary arteries which carry the oxygen to the heart become blocked. This blockage can be due to cholesterol, fat and other substances which are known collectively as plaque. Causing the arteries to become thick and hard. This is known as atherosclerosis. (Anon, 2012)

This plaque is dangerous in many ways one of them being that the plaque can break in the coronary artery causing a blood clot in this area. This blood clot blocks the coronary artery, cutting off the blood supply to the heart. This is known as an ischemia. During this blockage if any damage or death of any part of the heart muscle has occurred during an ischemia this is known as myocardial infarction (MI). (Anon, 2012)

There can also be an obstruction in the artery other than a blockage leading to a heart attack. (Anon, 2012)

(With some of the above mentioned heart attacks such as atherosclerosis, there are no symptoms as the body has compensated for the narrowing of the coronary arteries by widening other arteries.) (Anon, 2012)

An angina attack can often be confused for a heart attack. An angina pectoris is when the patient feels a sharp pain in his/her chest. This does not cause any damage to the heart muscle whereas a heart attack does. An angina pectoris occurs normally during exercise or emotional pain causing the patients' blood pressure to increase beyond normal. (Anon, 2012)

Other causes of a heart attack can be a spasm in the coronary artery blocking the blood supply flow towards the heart muscle hindering the oxygen and vital supply of nutrients to the heart. The cause of the spasm is unknown and can occur in an ordinary artery or in one that has a blockage. If the spasm is severe this can lead to a heart attack. (Anon, 2012)

Cardiac arrest is when there is an abnormal heart beat. This is slightly different to a heart attack because it is due to the hearts electrical system. This is when the electrical system malfunctions. Cardiac arrest sometimes known as sudden cardiac death SCD is when there is an irregular heartbeat, Arrhymias. Most common is ventricular fibrillation; this is when the lower chambers of the heart stop pumping blood. Death will occur in a few minutes if CPR (cardiopulmonary resuscitation) or using a defibrillator to restore the normal heart beat. (Anon, 2012)

Warning signs of a heart attack:

Chest pain/discomfort

Discomfort in the upper body regions

Dyspnoea – shortness of breath

Cold sweats

Nausea

Fatigue – light headed

Palpitations – heart heating fast

(Anon, 2012)

Risk factors which promote heart disease:

Smoking

Diet high in saturated fats

Elevated cholesterol levels

Obesity (Anon, 2012)

How is a heart attack treated?

Treatment of a heart attack may be both surgical and non-surgical. The type of treatment administered to a heart attack patient depends on the type of heart attack they are suffering from and treatment window (time span) in which treatment may be offered. Because only a few hospitals offer 24 hour percutaneous coronary intervention (PCI) procedures, clot-dissolving medication is used to reopen arteries that may be clogged. Such medication may not be used on patients with neurological disorders, pregnant patients, patients who have had major surgery or trauma in the past 6 weeks and patients who had been vomiting blood. (Amy and Elliot, 2006)

Angioplasty

Should a doctor decide that a patient needs an angioplasty, artery blockages will be observed on an angiogram (an x-ray of the heart’s arteries) in a catheterization laboratory. A PCI is then performed by a cardiologist, in which the patient will remain awake throughout the whole procedure. During this procedure the skin is numbed, and a needle is inserted through the skin and a catheter and a soft-tipped guide wire are threaded into the aorta, and then into the heart using the needle. The catheter tip is passed through the arteries that transport the blood to the heart. Once the catheter is in place, a dye is injected into the heart vessels to make any blockages visible on x-ray. A tiny balloon on the tip of the catheter is inflated to unblock the artery. After the procedure, a stent is inserted where the blockage was. The stent is will remain permanently in the heart and may in some cases slowly release medication over time which prevents the growth of scar tissue and also prevents the formation of clots on that site. The recovery process may then take place in the coronary care unit which is an intensive care unit, where the patient will be monitored with ECG’s, blood tests and routine checkups 24 hours a day. (Anon., 2012)

Antiplatelet medication is prescribed to patients with newly inserted stents. This medication is important to prevent clotting in the stents. This medication must be taken by the patient for at least 12 months. If a patient stops taking the medication too soon it may result in a clot that may block the flow of blood through the stent resulting in another heart attack. Medication such as beta-blockers, aspirin and statin may also be prescribed by the cardiologist to prevent future heart attacks.

In the event that non-surgical treatment is preferred by the doctor, medication can be administered to the patient. The medication is used to prevent future blood clots, break up existing clots, prevent platelets from gathering and sticking to the plaque, stabilize the plaque, and prevent any blood supply restrictions to tissues in the body. In order to decrease the damage that the heart muscle can undergo it is vital that the medication is administered within 30 minutes from when the heart attack symptoms occurred. (Anon., 2012)

Medication used in heart attack treatment includes:

aspirin

thrombolytic therapy (“ clot busters”)

heparin

other antiplatelet drugs

Should a patient have more than 3 blocked arteries, coronary artery bypass surgery is usually recommended.

Coronary artery bypass surgery

This type of surgery is used to improve the flow of blood to the heart in people with severe coronary artery disease that puts them in the risk of having a heart attack. During this surgery a blocked coronary artery and a healthy vein or artery are joined together in order to improve the flow of blood and oxygen to the heart. 85% of individuals who undergo this surgery are at a less risk of having future heart attacks, they experience fewer

symptoms, and they have a lower chance of dying within 10 years after the surgery. There are different types of coronary artery bypass surgery. (Anon., 2012). These include:-

Traditional coronary artery bypass surgery

This is the most common type of bypass surgery and is performed when a bypass is needed on at least one major artery. During this procedure, the chest is opened; exposing the heart and medication is used to stop the heart until the end of the procedure. The heart is operated on whilst a heart-lung machine is used to pump blood around the body, not depleting the oxygen supply throughout the whole body. Electric shocks are used to start the heart again after the surgery. (Anon., 2012)

Off-pump coronary artery bypass surgery

This type of surgery is also open heart surgery and is similar to the traditional coronary artery bypass surgery. The difference is that the heart is not stopped which reduces the recovery time and also reduces the number of complications that may occur during and after surgery.(Anon., 2012)

Minimally invasive direct coronary artery bypass surgery

This type of surgery is similar to the off-pump bypass surgery, except it is not open heart surgery. It is used to bypass the vessels in anterior of the heart. it isn’t commonly used as it is a new procedure and it is used in cases where more than two arteries are going to be bypassed. The procedure itself is one in which small incision are made in-between the ribs on the left hand side of the body to access the vessels. (Anon., 2012)

Description: http://topnews. in/usa/files/heart_attack. jpg

(Rose, 2008)

What is epilepsy?

This is a term used to define condition in which an individual has recurring seizures of also known as fits. These occur when there is a disruption in the messages being relayed across the brain between brain cells resulting in a mix up or a complete halt of messages in the brain. These seizures occur when there is too much sudden brain activity. Each individual who has epileptic fits experiences then in a way that is unique to them, this is because there are different types of seizures and the type of seizure experienced depends the positioning of the epileptic activity, how wide and how fast in the brain the epileptic activity spreads. (Anon, 2012)

The cause of some of the epileptic syndromes is unknown while for others it may be hereditary. The type of epilepsy syndrome is usually described according to its symptoms or where in the brain it occurs. There are many different types of epilepsy syndromes some of which begin in infancy, while others begin in adulthood. Some stop during adolescence or early adulthood whilst others are chronic. (Anon, 2012)

Different types of epilepsy

Photosensitive epilepsy

In the event that epileptic seizures are caused by flickering lights or flashing lights, it is referred to as photosensitive epilepsy. In this type of epilepsy, natural or artificial lights and checked or striped patterns may also result in

the seizures occurring. The seizure occurs during or shortly after the individual has been exposed to the cause. This type of epilepsy usually occurs to individuals between the ages of 7 and 19 and it affects more boys than girls. (Anon, 2012)

Absence epilepsy

This type of epilepsy is usually hereditary and begins from infancy to adolescence. Individuals with this type of epilepsy experience absence seizures that happen repeatedly. During the seizures individuals have reported symptoms such as a jerking arm or rapidly blinking eyes, whilst others have reported no symptoms at all except for feeling “ out of it”. These symptoms have no effect on an individual’s intelligence; however, they could affect learning a school or daily activities if they occur. (Anon 2012)

Psychomotor epilepsy

With this type of epilepsy, during seizures individuals experience strange emotions, sensations and behaviour. Its name is used to describe partial seizures that keep occurring in the temporal lobe of the brain.

Occipital lobe epilepsy

This type of epilepsy is similar to temporal and frontal lobe epilepsy, however it usually begins with rapid eye blinking, individuals visualizing hallucinations and/other symptoms which have to do with the eyes. (Anon, 2012)

Frontal lobe epilepsy

This type of epilepsy has many different types of its kind which are described according to where in the frontal lobe they may occur. It describes a reoccurrence of short seizures which may suddenly stop or begin at any moment in time. (Anon, 2012)

Temporal lobe epilepsy (TLE)

This type of epilepsy is the most common with partial sezuires. it may cause memory loss and make learning difficult as it causes a structure in the brain called the hippocampus to shrink. This structure is vital for learning and memory. Although the damage which may be caused by temporal lobe seizures may take years to occur, it is advised that it is treated early and as effectively as possible to prevent and further damage that may occur. (Anon, 2012)

Juvenile Myoclonic Epilepsy

This type of epilepsy is chronic and doesn’t always begin in childhood, however once a person has it they have to live with it for the rest of their lives. An example of this type of epilepsy is Ramsay Hunt Syndrome type II which begins in the early adulthood and causes muscle coordination to be reduced, seizures and reduces the abilities to learn, remember, pay attention and solve problems. (Anon, 2012)

Lennox-Gastaut Syndrome

This type of epilepsy begins in childhood. It has many symptoms which include sudden falls or drop attacks during seizures called atonic seizures. It is very difficult to treat and is also very severe. (Anon, 2012)

Strobe lights causing epilepsy.

Individual strobes or small groups of strobes have been used in entertainment venues for years. They even became a symbol or sign of night fun, because most of the night clubs use strobe lights and loud music to heat up the fun, without noticing or being aware that this triggered epileptic seizures known as photosensitive epilepsy. Photosensitive epilepsy has been known and studied for many years. Many people are unaware that they are sensitive to flickering lights or to certain kinds of patterns until they have a seizure. They may never go on to develop epilepsy, which is characterized by recurrent spontaneous seizures, though a seizure may be triggered by certain photic conditions. Many individuals who are disturbed by light exposure do not develop seizures but experience other symptoms such as headache, nausea, dizziness and more. Photosensitive epilepsy is more common in children and adolescents, especially those with generalized epilepsy, in particular juvenile myoclonic epilepsy. It becomes less frequent with age, with relatively few cases in the mid-twenties. Apparently, there is considerable body of knowledge relative to strobes and photosensitive epilepsy. Standards exist regarding the use of strobes in signalling applications such as for fire alarms. (Anon, 2012)

It should be noted that it is not the “ strobe” that is the problem; any light flashing at the noted frequencies may be a problem to photosensitive people. Seizures may be triggered by exposure to television screens (flickering and rolling of pictures), to computer monitors, to certain video games or TV broadcasts containing rapid flashes or alternating patterns of

different colours, and to intense strobe lights like visual fire alarms. (Harding, 2008)

In the U. S. population stats show that less than 5% of those who suffer from epilepsy are photosensitive. This means that approximately one in 4, 000 individuals suffer from this – less than 100, 000 in the U. S. population. There is high possibility that even in other countries the same stats still stands, but the characteristics of each individual's susceptibility are unique this means there could a great variety on severity of the condition. It is well addressed in articles that the range of 15 to 20 Hz is of greatest concern; however some individuals are susceptible to flashing lights as slow as 5 Hz and some as high as 84 Hz as individuals are susceptible to in different ways. (Anon, 2012)

People should check with their doctors if they are concerned about flashing lights triggering seizures. Chances are that the medical records will indicate how you responded to flashing lights during the electroencephalogram (EEG), a test done routinely in most people with epilepsy. During this test, sensors are attached to the patient's scalp to monitor the electrical activity of the brain in various conditions, including light stimulation generated by a strobe positioned in front of the eyes. An abnormal response when the patient is exposed to various frequencies of flashing lights indicates the presence of photosensitivity. (Anon, 2012)

Ways that would help prevent the triggering of these conditions.

Avoid exposure to certain kinds of flashing lights; and

Cover one eye and turn away from the direct light source when in the presence of flashing lights.

General tips offered by the Epilepsy Foundation Organisation in America to reduce the chances of causing epileptic seizures. (Anon, 2012)

Visual Fire Alarm Strobe Lights:

In most workplaces and places serving the public, including theatres, restaurants, and recreation areas, are required to have fire alarms, which flash as well as ring so that people who cannot hear or cannot hear well will know that there is an emergency.

To reduce the likelihood of the strobe light triggering a seizure, the Epilepsy Foundation’s professional advisory board recommends that

the flash rate be kept to under 2 Hertz with breaks every so often between flashes; and

flashing lights should be placed at a distance from each other and set to flash together at the same time to avoid an increase in the number of individual flashes. (Anon, 2012)

Television Screens:

Watch television in a well-lit room to reduce the contrast between light from the set and light in the room.

Reduce the brightness of the screen.

Keep as far back from the screen as possible.

Use the remote control to change channels on the TV so you won’t have to get too close to the set.

Avoid watching for long periods of time.

Wear polarized sunglasses while viewing television to reduce glare. (Anon, 2012)

Videogames:

Sit at least 2 feet from the screen in a well-lit room.

Reduce the brightness of the screen.

Do not let children play videogames if they are tired.

Take frequent breaks from the games and look away from the screen every once in a while. Do not close and open eyes while looking at the screen – blinking may facilitate seizures in sensitive individuals.

Cover one eye while playing; alternating which eye is covered at regular intervals.

Turn the game off if strange or unusual feelings or body jerks develop. (Anon, 2012)

Computer Monitors:

Use a flicker-free monitor (LCD display or flat screen).

Use a monitor glare guard.

Wear non-glare glasses to reduce glare from the screen.

Take frequent breaks from tasks involving the computer. (Anon, 2012)

http://blog. eastside. org/wordpress/jamiea/files/2012/02/Lights. jpg

(Strobe lights, 2012)

What happens during a seizure (Epilepsy)

Normally the brain controls the functions of the body, either by interpreting electrical messages from sensory nerves or by generating electrical impulses for transmission down the motor nerves to the muscles. This normal electrical activity can be measured by taking an Electroencephalogram (EEG), using an instrument called an Electroencephalograph. The EEG does not provide a sure diagnose of Epilepsy. (Encyclopaedia of family health)

http://www. drugs. com/health-guide/images/205052. jpg(Neurology, 2012)

During an Epileptic attack, the electrical impulses recorded by the EEG increases in voltage and frequency, so that what appeared to be a reasonably ordered pattern of electrical activity becomes frenzied. The attack usually begins at one spot and then spreads as the fits develops to involve the whole brain.(Encyclopaedia of family Health)

When there are disordered electrical activities over the whole brain, the attack which seldom lasts more than a minute or two may begin with a patient experiencing a strange sensation or an odd unreal smell and a phenomenon called the “ Déjà vu”. This stage of the attack is known as Aura, followed immediately by the tonic seizure, during which the muscles contract

and remain contracted, the patient loses control and falls rigid to the ground. Patient shouts and passes into the Clonic phase, when the arms and legs twitch and the breath is held. In the clonic and tonic phases the sufferer will feel confused and drowsy and may sleep. Paralysis may then develop in one or more limbs and last for an hour or more. (Encyclopaedia of family health)

In Children

Seizures are called petit mal. The child does not fall down but loses touch with the world for a few seconds, results in confusion and forgetful. If the Seizure attacks the child when they are speaking, he or she will suddenly stop for a couple of seconds then continue as if nothing happened. The child is unaware of the attacks. (Encyclopaedia of family health)

What to do if someone has an Epileptic Seizure

It is important to know that It is not possible to stop the attack, but helpful to protect the person having such an attack from injury. Here is what to do if someone has an Epileptic Seizure:

Ensure that the patient cannot bang his or her limbs against any hard furniture, and keep him or her well away from any fireplace. A child should not be left alone until the attack is over.

Do not attempt to push anything into the patient’s mouth or to force the jaws open. The jaws are powerfully clenched, and it is possible to cause an injury by trying to open them.

When the fit is over, turn the patient gently onto one side and loosen his or her clothes on the neck so that there is no difficulty in breathing.

If the fit has happened in an unsafe place, get the patient to safety quickly.

If someone in the family has a fit for the first time, give the Doctor a careful, detailed account of what happened during the attack and just before it. This will help the Doctor make the correct diagnosis.

A child who has a convulsion because of high fever should not be kept warm. Remove blankets and thick clothing, and if temperature rises above 39. 40C, sponge the patient all over with tepid water until it comes down to 38. 80C. (Encyclopaedia of family health)

http://3. bp. blogspot. com/_uBFt0AvFaDs/TUak1IPG5GI/AAAAAAAAEd8/ehkyIyHGp8A/s1600/epilepsy-recovery. jpg

(Medical issues seizures, n. d.)

The Treatment of Photosensitive Epilepsy

As is the case with all seizures, photosensitive seizures are usually treated with drugs known as anticonvulsants. Anticonvulsants refer to a group of diverse pharmaceutical products which are used in both the prevention and the treatment of epilepsy. In photosensitive epilepsy, Sodium Valproate is the recommended treatment. Sodium Valproate works to prevent an excess of electrical activity in the brain, thus calming the brain and preventing the occurrence of fits. Chemicals referred to as neurotransmitters are stored in nerve cells. Their function is to transmit messages between the nerve cells. GABA, is a neurotransmitter that acts to calm the nerves, its function is to maintain a balance of the nerve activity in the brain. Sodium Valproate works

to increase the production of the neurotransmitter GABA in the brain and prevent the breakdown of this neurotransmitter, ultimately this results in the stabilising of the electrical nerve activity and achieving the desired therapeutic outcome, preventing seizures. These drugs cannot completely cure epilepsy but through their use, by strictly following the prescribed drug regimen, epilepsy may be controlled and prevented. (Anon, 2008)

Although antiepileptic drugs are the most common methods of treatment of epilepsy, but they may not always be effective. Other methods of treatment of epilepsy include:

Vagus Nerve Stimulation: The treatment works by sending mild impulses of energy to the brain, via the Vagus nerve via an implanted device (Anon, 2007) . This is a treatment used as an option for patients who have tried several anti-epileptic drugs and still have not managed to gain adequate control of their seizures. This treatment is used in conjunction with anti-epileptic drugs. The vagus nerve stimulation does not act as a replacement for the drugs the patient is being administered, it works to aid the drugs thus achieving a better therapeutic response from the patient. Vagus nerve stimulation may also take up to two years to have an effect on a patients seizures, but if the treatment is effective, the patient may be allowed to decrease their anti-epileptic doses over time. The aim of vagus nerve stimulation is to reduce the number of seizures, the length of the seizures and the severity of the seizures in a patient. It must be remembered though that the treatment has a wide range of side effects.

Diet: The ketogenic diet. Ketogenic has the meaning, keto which means ketones and genic meaning producing, thus ketone producing. This diet is a high-fat, low-carbohydrate diet (Dr. Eric Kossoff, 2006). The formation of ketones is a result of the body using fat as its energy source. With the decrease in the intake of carbohydrates, the bodies usual energy source, the body uses a fat as an alternative energy source, thus giving rise to ketone formation in the body and ultimately leading to better seizure control.

Surgery: this treatment is used when epilepsy cannot be controlled in the patient with medication use. There is no guarantee though that the surgery will have an effect on the patient. The aim of the surgery is to remove the damaged brain tissue in order to effectively stop the seizures (Anon, 2012).

http://2. bp. blogspot. com/_F9GrVKaAL3Q/StLUJVy0SHI/AAAAAAAAAEc/nRHO2wYxwO0/s320/sodium-valproate-4. jpg

(Sodium Valporate, n. d.)

Conclusion:

Due to the high increase of epilepsy and heart attacks it is vital that awareness about the causes of these conditions should be made available. Epileptic patients should wear medical ID bracelets, making it easier to identify what could be happening to them during seizures. Light regulation should be put in place in all night clubs, reducing the speed of the strobe lights, therefore lowering the risk of epileptic seizures. A range of treatment options exist for those who have photosensitive epilepsy, but there is no absolute cure for the condition, therefore awareness plays a vital role in

precaution and thus prevention of these epileptic attacks. With regards to the effect of the upbeat music genres on the heart and other bodily functions, the best way to curb this is to minimise exposure. This can only be done through people taking initiative to avoid falling victim to a health hazard that could have otherwise been avoided. Regulation of the volumes of the music can be another way to lower the risks, as well as avoiding increasing the tempo of the music as is often the case. Places playing heavy metal music should be avoided at all costs. One can eve